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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,116	04/14/2006	Katsunori Sakata	FP04001-US-P/MM/CT	1096
21254 7590 05/04/2009 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817				
EXAMINER MARC, MCDEUNEL				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/563,116

**Applicant(s)**

SAKATA ET AL.

**Examiner**

MCDIEUNEL MARC

**Art Unit**

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/27/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-23 are pending.
2. The objection to the abstract regarding the word "invention" is withdrawn.
3. The rejection to claims 1-22 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Davis et al. (US 7080652) is maintained.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. The term "*large-sized thin plate*" in claims 1 and 15 is a relative term which renders the claim indefinite. The term "*large-sized thin plate*" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The size has been defined, therefore the claims are indefinite.

All claims depending from a rejected base claim are also rejected as containing the same deficiencies.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Davis et al. (US 7080652).

As per claims 1 and 15, Davis et al. 7080652 teaches a system and an associated method having an automated semiconductor processing that contains *a transporting apparatus, installed in a given clean environment, for transporting a large-sized thin plate from a predetermined takeoff position to a processing chamber* (see Fig. 5, element 80), *comprising: a pair of upright support members standing at a predetermined interval* (see Fig. 5 and Fig. 6, element 15); *at least one horizontal support table liftably cantilevered on the pair of upright support members* (see col. 7, lines 49-56 and col. 15, lines 30-49); *lift driving means for lifting the horizontal support table vertically* (see col. 32, line 65 – to – col. 33, line -6); *and a robot placed on the horizontal support table and having horizontally rotating arms for taking up and transporting the thin plate* (see Figs. 1-2, 33 and 45).

In view of the alternative 103, the large-sized thin plate limitation had been considered as indefinite language. However, element 80 of Fig. 5 has been considered as meeting the above limitation.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to shed light into Davis' reference, because element 80 of Fig. 5 would have introduced as known standard regular CD ROM which in turn being taken as "The most common **size of CD-ROM** disc is 120 mm in diameter", so that data can be stored, thereby improving the efficiency and the reliability of the transporting apparatus and transporting control method for thin plate.

As per claim 2, Davis et al. 7080652 teaches an automated semiconductor processing that contains *wherein the robot drives the horizontally rotating arms to take the thin plate from or back to between the pair of upright support members* (see Fig. 6, element 15).

As per claim 3, Davis et al. 7080652 teaches an automated semiconductor processing that contains *wherein the horizontal support table comprises tilt adjusting means for changing an angle of the robot placed on the horizontal support table with respect to a horizontal plane* (see col. 32, lines 37-46).

As per claims 4-5, Davis et al. 7080652 teaches an automated semiconductor processing that contains *that further comprising deflection compensating means for compensating a deflected amount in a vertical direction of the rotating arms and a deflected amount of end effectors provided at respective ends of the rotating arms for taking up and transporting the thin*

*plate (see Figs. 21-23); and, wherein the deflection compensating means compensates both of the deflected amounts when the end effectors take up the thin plate (see col. 15, lines 50-67).*

As per claims 6, 16 and 18, Davis et al. 7080652 teaches a system and an associated method having an automated semiconductor processing that contains *wherein the deflection compensating means comprises deflection storing means (Fig. 32 element 706) for storing deflected amounts in the vertical direction at a plurality of predetermined measurement points involved in movement of a reference point on the rotating arms or the end effectors and (see abstract and col. 7, lines 49-56), every time the reference point moves to one of the measurement points, the deflection compensating means reads a deflected amount corresponding to a present position from the deflection storing means to compensate the deflected amount (see Figs. 23 and 32).*

As per claims 7, Davis et al. 7080652 teaches a system and an associated method having an automated semiconductor processing that contains *wherein the deflection storing means stores both a deflected amount due to a self weight and a deflected amount due to holding of the thin plate (see Fig. 32 element 706 and Fig. 5, element 80), and the deflected amount due to the self weight and the deflected amount due to holding of the thin plate are used to change a compensation amount (see Fig. 5).*

As per claim 8, Davis et al. 7080652 an automated semiconductor processing that contains *wherein the deflection compensating means comprises compensation controlling means for controlling the lift driving means to raise or lower the horizontal support table based on the*

*deflected amount thereby to compensate deflection of the rotating arms or the end effectors (see Figs. 14 and 45).*

As per claims 9, 10 and 17, Davis et al. 7080652 teaches a system and an associated method having an automated semiconductor processing that contains *wherein the deflection compensating means comprises compensation controlling means for controlling the tilt adjusting means to tilt the robot placed on the horizontal support table so as to raise or lower the end effectors or the rotating arms thereby to compensate deflection of the rotating arms or the end effectors (see Fig. 14 and col. 32, lines 37-46); wherein the deflection compensating means comprises compensation controlling means for controlling the lift driving means and the tilt adjusting means so as to raise or lower the horizontal support table and/or control the tilt adjusting means to performed tilting based on the deflected amount thereby to compensate deflection of the rotating arms or the end effectors (see col. 32, lines 37-46 as noted above).*

As per claims 11 and 20-21, Davis et al. 7080652 teaches a system and an associated method an automated semiconductor processing that contains *that further comprising: placing position detecting means (see Fig. 32, elements 706, 1391 and 1351) including a placing position sensor for detecting passage of the thin plate held by the end effectors and calculating means for calculating a displaced amount of the placing position from the reference point based on a detected signal of the placing position sensor (see Fig. 14); and displacement compensating means for compensating the displaced amount of the placing position based on the calculated displaced amount (see Fig. 36-54).*

As per claims 12 and 22, Davis et al. 7080652 teaches a system and associated method having an automated semiconductor processing that contains *wherein the placing position detecting means calculates a displaced amount in an X axis direction, a displaced amount in a Y axis direction and a displaced amount in a rotational direction from the predetermined reference point and the displacement compensating means compensates the displaced amounts by moving the end effectors in such a direction that the calculated displaced amounts are cancelled* (see Fig. 36-54).

As per claim 13, Davis et al. 7080652 an automated semiconductor processing that contains *that further comprising moving means for moving the pair of upright support members horizontally* (see Fig. 6, element 15).

As per claim 14, Davis et al. 7080652 an automated semiconductor processing that contains *that further comprising a beam for fixedly coupling top portions of the pair of upright support members while the pair of upright support members is held in parallel* (see col. 18, lines 33-55).

As per claim 19, Davis et al. 7080652 teaches an automated semiconductor processing that contains, *wherein in the step (c), the deflection data read from the storing means depends on whether the thin plate is held or not* (see Fig. 32 element 706).



***Response to Arguments***

8. As to the reference not teaching “at least one horizontal support table liftably cantilevered on the pair of upright support members” (see Fig. 6, element 15 and col. 18, lines 33-55).

As to the reference not teaching “a robot placed on the horizontal support table and having horizontally rotating arms for taking up and transporting the plate” (Figs. 1-2, 33 and 45).

As to the reference not teaching “calculating compensation data for compensating a deflected amount based on the deflection data, and compensating the deflected amount based on the compensation data” (see Fig. 14 and col. 32, lines 37-46).

As to the reference not teaching “a lift driving means for lifting the horizontal support table vertically” (see Fig. 140 which has been considered as vertical table and col. 32, line 65 – to – col. 33, line -6).

9. Applicant's arguments filed 1/27/2009 have been fully considered but they are not persuasive.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571)272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/McDieunel Marc/**  
Examiner, Art Unit 3664

Friday, May 01, 2009  
/KHOI TRAN/  
Supervisory Patent Examiner, Art Unit 3664